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Zoological Research

DESCRIPTION OF A NEW SPECIES OF THE GENUS *Laudakia* FROM XIZANG (TIBET)*
(Sauria: Agamidae)

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Abstract This paper describes a new species of the rock agamid genus *Laudakia*. The new species is closely similar to *L. tuberculata* (Hardwicke *et* Gray), but the new species differs from the latter in that: ①nostril is situated in center of elliptic nasal, directing outwards and rearwards; ②one supranasal; ③superciliary ridge poorly developed, blunt and not everting upwards; ④dorsum and flanks with many small, light-colored spots, the large, conic scales scattered on flanks are not situated in those spots.

Key words Sauria, Agamidae, *Laudakia papenfussi*, New species, Rock agamids

During 1995 and 1996, I was preparing the manuscript of the rock agamid genus *Laudakia* (members of it formerly belong to the genus *Agama* sensu lato), which is a part of the Sauria volume of the Fauna Sinica. Then, I have examined all the specimens belonging to this genus in the collections of Chengdu Institute of Biology, the Chinese Academy of Sciences. Among them, I found a specimen from Zanda County, Xizang (Tibet) Autonomous Region belonging to a new species which has not previously described.

Laudakia papenfussi sp. nov. (Fig. 1)

Type: CIB 775001, adult male, Mayang River Valley (altitude 3 300 meters) between Mayang Village and Diya Village, Zanda County, Xizang Autonomous Region, China. July 1, 1976 collected. This specimen is presented by Prof. Zhang Rong-zu as a gift to Chengdu Institute of Biology, the Chinese Academy of Sciences.

Diagnosis: Scales of tail arrange in rings and segments, each tail segment with 3 rings; median dorsal scales in longitudinal rows are rearwards obliquely to the midline; nostril is situated in center of the elliptic nasal, directing outwards and rearwards; one supranasal; superciliary ridge poorly developed, blunt and not everting upwards; dorsum and flanks with many small, light-colored spots, the large, conic scales scattered on flanks are not situated in those

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spots. The new species is closely similar to *Laudakia tuberculata* (Hardwicke *et* Gray, 1827). The latter differs from the new species in that: ①nostril is situated in the enlarge portion of the pear-shaped nasal, directing outwards; ②two supranasals; ③ superciliary ridge well developed, with sharp free margin and is slightly everted upwards; ④dorsum and flanks are scattered with many orange yellow, round spots; corresponding to each spot, there is either one large conic scale, or several large keeled scales, or one large conic scale surrounded by a circlet of small scales.

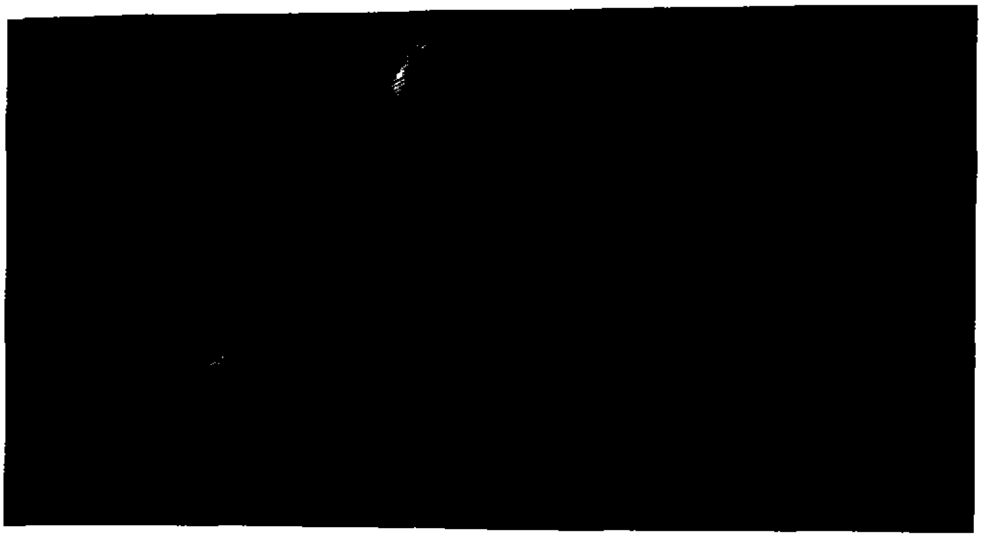


Fig. 1 *Laudakia papenfussi* sp. nov.

Dorso-lateral view of the type, CIB 775001, adult male, showing dorsum and flanks scattered with numerous light-colored spots.

Description of the type: An adult male, snout-vent length 124 mm, tail 193 mm of which the last 30 mm is regenerated; head length 32 mm, width 24 mm, height 18 mm; length of forelimb 58 mm, hind-limb 97 mm.

Body depressed, head slightly triangular, length of head 1.33 times its width. Nostril elliptic, on canthus rostralis, directing outwards and rearwards; eye moderate, pupil rounded; tympanum large, slightly rounded, its diameter is slightly smaller than that of eye, superficial, columella auris can be seen underneath the tympanum. Rostral scale broad and low, its upper margin is straight; scales on top of head heterogeneous, those on snout and fronto-parietal region are slightly large, bulging and smooth, those on supraocular region are much small, those on occiput are distinctly keeled. Nasal elliptic, large, nostril is situated in its center; one supranasal; nasal is separated from rostral by a small scale; superciliary ridge poorly developed, its margin blunt and not everting upwards; eyelids covered with scales; a row of large, keeled scales arranging in a curve below the lower eyelid, this scale row is separated from supralabials by three rows of small, smooth and slightly bulging scales, the row bordering supralabials is larger than the other two rows; scales between eye and tympanum are large and keeled on upper part, small and keeled on anterior lower part and granular on posterior low part; 3 or 4 large, conic scales on the anterior border of tympanum, its upper and pos-

terior margin with a patch of about 10 small, conic scales; several patches of small, conic scales on sides of neck and below the tympanum. 10 supralabials and 11 infralabials on each side; mental large, triangular, each side of it bordered by a slightly large scale; 4 or 5 rows of narrow and long scales parallel to the infralabials; the remaining scales of chin are small and slightly bulged. Gular pouch absent, gular fold present, skin of the neck loose; a short, low, longitudinal row of spinose scales on the nape represents rudimentary nuchal crest. The median dorsal vertebral scales slightly large, keeled, in 10 to 12 longitudinal rows, which are obliquely towards the midline on sacrum; the dorsal scales on both sides of vertebrals and lateral scales are small and keeled, among which scattered with large, conic scales; ventral scales smooth, or slightly keeled individually, are slightly larger than vertebrals. Both callous preanal and abdominal scales present in male. Limbs stout, tips of finger and toe overlapping much more when limbs adpressed, the longest toe of hind foot reaches to the tympanum; back of limbs covered with large, strongly keeled scales, the keels join together forming sharp ridges; scales of inner side of upper arm and thigh small, those of forearm and shank large and smooth; fingers and toes well developed and slightly compressed, fingers formula $4>3>5>2>1$, toes formula $4>5>3>2>1$; claws compressed and sharp. Tail cylindrical, slightly depressed at its base, covered with large, strongly keeled scales, the scales of lower surface the largest, scales of tail arrange in rings and segments, each segment is composed of 3 rings.

Color of formalin preserved specimen: Grayish-black in whole, but palms, soles, fingers, toes, and underside between two kinds of callous scales and tail are light-colored; snout, margins of upper and lower labials, and supraocular region are brownish. Dorsum and belly, on the grayish-black background, are scattered with many light-colored, minute spots, especially much numerous on the dorsum. One or more small scales are in corresponding area of each spot, while the large, conic scales scattered on flanks are not situated in those spots.

Specimens examined: *Laudakia papenfussi*: CIB 775001, an adult male; from Zanda County, Xizang (Tibet) Autonomous Region. *Laudakia tuberculata*: CIB 765001, an adult male; CIB 765002, a juvenile, both from Gyirong County, Xizang (Tibet) Autonomous Region. The numbers of other species of this genus examined by me are omitted.

Biological data: Only one male is known. It was collected on a heap of rocks along the valley of Mayang River, at an elevation of 3 300 meters, between Mayang Village and Diya Village, Zanda County, Xizang (Tibet) Autonomous Region.

Etymology: I take great pleasure in naming this new species for Dr. Theodore J. Papenfuss of the Museum of Vertebrate Zoology, University of California at Berkeley. During the 1980s, he has collaborated with us to study on fauna and ecology of amphibians and reptiles in western China and has been Xizang (Tibet) Autonomous Region several times.

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西藏岩蜥属一新种描述[*]

（蜥蜴亚目：鬣蜥科）

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摘 要 1995～1996年，作者撰写《中国动物志·蜥蜴亚目》卷鬣蜥科岩蜥属（*Laudakia*）时，曾详细研究了中国科学院成都生物研究所两栖爬行动物研究室收藏的岩蜥属全部标本，发现其中采自西藏自治区扎达县的1号雄性标本是未经描述的新种，将其订名为西藏岩蜥（*Laudakia papenfussi*）。其种名取自美国柏克利加州大学脊椎动物学博物馆Theodore J. Papenfuss先生的姓氏。Papenfuss先生在本世纪80年代与我所合作进行我国西部两栖爬行动物分类与生态的研究，曾数次到西藏野外工作。西藏岩蜥与南亚岩蜥（*Laudakia tuberculata*）相近，二者的主要区别在于：(1) 前者鼻鳞椭圆形，鼻孔开口于其中央；后者鼻鳞梨形，鼻孔开口于其膨大部。(2) 前者上鼻鳞1枚；后者上鼻鳞2枚。(3) 前者上睫脊较不发达，脊缘钝且不上翘；后者上睫脊发达，脊缘锐利且向上翘。(4) 前者体背及体侧分散有多数较小浅色点斑，点斑处为普通小鳞片，体背及体侧分散的若干较大锥鳞都不位于浅色点斑处；后者体背及体侧分散有若干橘黄色圆斑，圆斑所在或为1枚大的锥鳞，或为数枚较大刺鳞，或为中央1枚大的锥鳞围以一圈小鳞，圆斑之外无刺鳞或锥鳞。

关键词 鬣蜥科，岩蜥属，西藏岩蜥，新种
中图分类号 Q959.62

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